

REMARKS

In accordance with the foregoing, claims 16-19 has been cancelled. Claims 1-15 are pending and under consideration.

I. Rejection of claims 16 and 17 under 35 U.S.C. 102(b) or 103(a), and Rejection of claims 16 to 19 under 35 U.S.C. 103(a)

With respect to the rejection of claims 16 and 17 under 35 U.S.C. 102(b) or 103(a) and the rejection of claims 16 to 19 under U.S.C. 103(a), as mentioned above, claims 16 to 19 have instantly been cancelled.

II. Rejection of claims 1 to 19 under 35 U.S.C. 103

Claim 1 to 19 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 7,220,795 (**Miyoshi et al.**) further in view of U.S. 5,965,655 (**Mordecai et al.**). Specifically, the Examiner states to the effect:

that **Miyoshi et al.** disclose all of the components described in the claims of the present application,

that **Miyoshi et al.** differ from claim 1 in “disclosing but not expressly exemplifying a composition containing at least two different polyamide components”, and **Miyoshi et al.** differ from claim 16 of the present application in “disclosing but not expressly exemplifying a composition containing wollastonite”; and

that, however, the use of a mixture of at least two different polyamides would have been obvious to one having ordinary skill in the art, and the use of wollastonite would have been obvious to one having ordinary skill in the art in view of, for example, **Mordecai et al.**

Traverse is made as follows.

With respect claims 16 to 19, as mentioned above, these claims have been cancelled, and hence, arguments on these claims are omitted.

With respect to claim 1 of the present application, the use of two different polyamides as pointed out by the Examiner is important. However, perhaps a more important difference is that the present invention relates to a “shaped resin article” having a feature that “said polyamide (A) is exposed on a surface of said shaped resin article so that the **surface area of the polyamide (A)** exposed on the overall surface of said shaped resin article is **at least 80 %**, based on the surface area of the shaped resin article.” In the present invention, the specific surface area of the polyamide (A) (hereinafter, referred to as “polyamide area ratio”) is critical for achieving the

excellent effects of the present invention. Although the claims are not limited to any particular excellent effects, reference is made to the description at page 1, line 23 to page 2, line 8 of the present specification, which reads:

"The shaped resin article of the present invention is advantageous not only in that the shaped resin article has **excellent matte surface**, but also in that the shaped resin article has **excellent strength of adhesion** to a coating formed on the shaped resin article (which strength of adhesion is hereinafter, referred to simply as "coating adhesion strength"), and such a coating formed on the shaped resin article has **excellent sharpness of an image** reflected therein (i.e., the coating has excellent luster)." (emphasis added)

Such excellent effects of the present invention are clearly substantiated in the Examples and Comparative Examples of the present application.

Specifically, in Examples 1 to 4 and Comparative Example 1 of the present application, shaped articles are produced mainly from polyphenylene ether (PPE), polystyrene/polyethylene butylene/polystyrene block copolymer (SEBS), and polyamide 6,6 (PA66), and various properties of the shaped articles are evaluated. The results are shown in Table 1 on page 91 of the present specification.

Further, in Examples 5 to 7 and Comparative Example 2, shaped articles are produced mainly from PPE, SEBS, PA66 and **carbon black**, and various properties of the shaped articles are evaluated. The results are shown in Table 2 on page 94 of the present specification.

Certainly, the claims are not limited to the specific example compositions described in the specification. However, for easy reference, slightly modified versions of the above-mentioned Tables 1 and 2 are shown below as Tables 1' and 2', in which the modifications are made for easy comparison between the Examples and the Comparative Examples, and to add note *0).

Table 1

					Ex. 1	Ex. 2	Ex. 3	Ex. 4	Comp. Ex. 1
Upstream inlet									
Feeder 1	PPE-1 <input type="checkbox"/> parts by weight <input type="checkbox"/>	*1			38	38		30	38
	PPE-2 <input type="checkbox"/> parts by weight <input type="checkbox"/>	*2					38		
Feeder 2	MPPE <input type="checkbox"/> parts by weight <input type="checkbox"/>	*3						8	
	MAH <input type="checkbox"/> parts by weight <input type="checkbox"/>	*4			0.2	0.3	0.3		0.3
Feeder 3	SEBS1 <input type="checkbox"/> parts by weight <input type="checkbox"/>	*5			4	4	4	4	4
	SEBS2 <input type="checkbox"/> parts by weight <input type="checkbox"/>	*6			8	8	8	8	8
1st downstream inlet									
Feeder 4	PA66-a <input type="checkbox"/> parts by weight <input type="checkbox"/>	*7			40	40	40	40	
	PA66-b <input type="checkbox"/> parts by weight <input type="checkbox"/>	*8			10			10	
	PA66-c <input type="checkbox"/> parts by weight <input type="checkbox"/>	*9					10		50
	PA66/6I <input type="checkbox"/> parts by weight <input type="checkbox"/>	*10				10			
Polyamide area ratio		%			84	94	90	87	67
PPE having a molecular weight of 5,000 or less		%			4.78	<input type="checkbox"/>	7.18	3.67	<input type="checkbox"/>
PPE having a molecular weight of 200,000 or less		%			1.45	<input type="checkbox"/>	0.82	3.4	<input type="checkbox"/>
PPE having a molecular weight of 200,000 or less/ PPE having a molecular weight of 5,000 or less		<input type="checkbox"/>			0.30	<input type="checkbox"/>	0.11	0.93	<input type="checkbox"/>
Coating adhesion strength (number of square coating sections left on the surface of a shaped resin article out of 100 square coating sections)					95	100	60	100	5
Sharpness of an image reflected in the coated surface <input type="checkbox"/>					A	A	A	A	A
Mattiness of the coated surface *0 <input type="checkbox"/>					III	II	II	III	I

*0) Level of mattiness : IV > III > II > I (p.84, line 16 to p.85, line 25 of the specification)

*1) PPE powder having a reduced viscosity of 0.52 dl/g

*2) PPE powder having a reduced viscosity of 0.42 dl/g

*3) MAH-modified PPE obtained by melt kneading PPE having a reduced viscosity of 0.42 dl/g with MAH

*4) Maleic anhydride (in the form of tablets)

*5) SEBS block copolymer (styrene content: 33 %; Mn: 246,000)

*6) SEBS block copolymer (styrene content: 29 %; Mn: 98,500)

*7) PA6,6 viscosity number: 120 ml/g; [NH₂] = 2.5×10⁻⁵mol/g; [COOH] = 11.6×10⁻⁵ mol/g

*8) PA6,6 viscosity number: 130 ml/g; [NH₂] = 4.2×10⁻⁵mol/g; [COOH] = 9.1×10⁻⁵ mol/g

*9) PA6,6 viscosity number: 230 ml/g; [NH₂] = 2.4×10⁻⁵mol/g; [COOH] = 4.8×10⁻⁵ mol/g

*10) PA6,6/6I containing 19 mol% of polyamide 6I; [NH₂] = 3.9×10⁻⁵mol/g; [COOH] = 10.2×10⁻⁵ mol/g

Table 2'

		Ex. 5	Comp. Ex. 2	Ex. 6	Ex. 7
Upstream inlet					
Feeder 1	PPE-1 <input type="checkbox"/> parts by weight <input type="checkbox"/>	38	38	38	22
Feeder 2	MPPE <input type="checkbox"/> parts by weight <input type="checkbox"/>				16
	MAH <input type="checkbox"/> parts by weight <input type="checkbox"/>	0.3	0.3	0.3	
Feeder 3	SEBS1 <input type="checkbox"/> parts by weight <input type="checkbox"/>	12		12	3
	SEBS2 <input type="checkbox"/> parts by weight <input type="checkbox"/>		12		5
	SEBS3 <input type="checkbox"/> parts by weight <input type="checkbox"/> *11				4
1st downstream inlet					
Feeder 4	PA66-a <input type="checkbox"/> parts by weight <input type="checkbox"/>			50	20
	PA66-b <input type="checkbox"/> parts by weight <input type="checkbox"/>	30	30		10
	PA66-c <input type="checkbox"/> parts by weight <input type="checkbox"/>				
	PA-MB <input type="checkbox"/> parts by weight <input type="checkbox"/> *12	20	20		20
	KB <input type="checkbox"/> parts by weight <input type="checkbox"/> *13			2	
Polyamide area ratio		%	81	75	96
PPE having a molecular weight of 5,000 or less		%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PPE having a molecular weight of 200,000 or less		%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PPE having a molecular weight of 200,000 or less/ PPE having a molecular weight of 5,000 or less		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coating adhesion strength (number of square coating sections left on the surface of a shaped resin article out of 100 square coating sections)		83	45	70	100
Sharpness of an image reflected in the coated surface <input type="checkbox"/>		B	A	B	A
Mattiness of the coated surface <input type="checkbox"/>		III	II	IV	IV

*0) Level of mattiness : IV > III > II > I (p.84, line 16 to p.85, line 25 of the specification)

*11) SEBS block copolymer (styrene content: 60 %; Mn: 105,000)

*12) Conductive polyamide/carbon masterbatch (carbon content: 10 wt%)

*13) Conductive carbon (ketjen black EC600JD)

As can be seen from Table 1' above, as compared to the shaped resin article produced in Comparative Example 1 (polyamide area ratio : **67 %**), the shapes articles produced in Examples 1 to 4 of the present application (polyamide area ratio : **84 to 94 %**) have excellent coating adhesion strength ("**60**" to "**100**" in Examples 1 to 4 vs. "**5**" in Comparative Example 1) and excellent matteness of the coated surface ("**II**" or "**III**" in Examples 1 to 4 vs. "**I**" in Comparative Example 1).

Further, as can be seen from Table 2' above, as compared to the shaped article obtained in Comparative Example 2 (polyamide area ratio : **75 %**), the shaped articles produced in Examples 5 to 7 (polyamide area ratio : **81 to 97 %**) have excellent coating adhesion strength ("**70**" to "**100**" in Examples 5 to 7 vs. "**45**" in Comparative Example 2) and excellent matteness of the coated surface ("**III**" or "**IV**" in Examples 5 to 7 vs. "**II**" in Comparative Example 2).

Thus, it is apparent that the specific polyamide area ratio is **critical** for achieving the excellent effects of the present invention.

On the other hand, with respect to a shaped resin article, **Miyoshi et al.** only describe that the resin composition of this reference can be molded into various articles by various methods. See col. 19, line 66 to col. 20, line 16. **Miyoshi et al.** have **no** teaching or suggestion about the characteristics of such articles, such as the area of polyamide exposed on the surface of the article. Needless to say, **Miyoshi et al.** have **no** teaching or suggestion about the excellent effects achieved by the specific polyamide area ratio. **Mordecai et al.** relates to a mineral filled moldable thermoplastic composition. **Mordecai et al.** mentions that the resulting molded article should have a "class A" surface, which is as glossy and smooth as that of a current automobile exterior part made from sheet metals. See col. 1, lines 23-27. There is no teaching or suggestion in **Mordecai et al.** to have polyamide exposed on the surface, as claimed.

From the above, it is apparent that the present invention is **not** anticipated **nor** obvious over the cited references, taken alone or in combination.

IV. Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Docket No.: 1806.1010

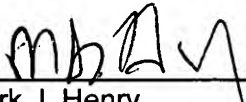
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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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